

TAXONOMIC CHANGES IN *LESSINGIA* (COMPOSITAE: ASTEREAE)

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ABSTRACT

Phylogenetic studies of *Lessingia* Cham. show that different corolla coloration (pink/white vs. yellow) diagnoses the two major clades of *Lessingia sensu stricto*. There are no taxonomic changes in the “pink/white group” but two taxa within the “yellow group,” recognized by Lane (1993) as *L. glandulifera* A. Gray and *L. lemmontii* A. Gray, are not monophyletic and have therefore been realigned to reflect natural lineages. The circumscription of *L. lemmontii* *sensu* Lane (1993) has been expanded and now includes the type specimen of *L. glandulifera*, a name that has priority over *L. lemmontii*. Plants included in a narrowed circumscription of *L. glandulifera* *sensu* Lane (1993) will now be recognized as *L. pectinata* Greene. *Lessingia glandulifera* A. Gray var. *peirsonii* (J. T. Howell) Markos and *L. pectinata* Greene var. *tenuipes* (J. T. Howell) Markos are new combinations.

Key Words: phylogeny, Asteraceae, Astereae, *Lessingia glandulifera*, *Lessingia lemmontii*.

The foundation for the taxonomic changes discussed here is a phylogenetic study of *Lessingia* based on morphological and molecular data (Markos and Baldwin 2001). Two genera, included in *Lessingia* by Lane (1993), *Corethrogyne* DC. (*L. filaginifolia*) and *Benitoa* D. D. Keck (*L. occidentalis*) will each be recognized as monospecific genera in the *Flora of North America North of Mexico*. Within *Lessingia* (*sensu stricto*), corolla coloration (pink/white vs. yellow) diagnoses two major clades. There are no taxonomic changes in the “pink/white group” comprised of *L. arachnoidea* Greene, *L. hololeuca* Greene, *L. leptoclada* A. Gray, *L. micradenia* Greene, *L. nana* A. Gray, *L. nemaclada* Greene, *L. ramulosa* A. Gray, and *L. virgata* A. Gray. Within the “yellow group,” the circumscription of *L. germanorum* Cham., *L. tenuis* A. Gray (Cov.) will remain the same but two taxa, recognized by Lane (1993) as *L. glandulifera* A. Gray and *L. lemmontii* A. Gray (each with three varieties), are not monophyletic and have therefore been realigned to reflect natural lineages.

I expanded the circumscription of *L. lemmontii*, *sensu* Lane (1993) to include plants that have yellow corollas, lack brown-purple bands in their corolla tubes, and have lanceolate style-branch appendages (0.3–1.3 mm long). The expanded circumscription includes the nomenclatural type of *L. glandulifera* (S. B. and W. F. Parish 577, August 1880, “Dry mesa, San Bernardino Valley,” San Bernardino County, California, deposited in the Gray Herbarium). Because *L. glandulifera* A. Gray, 1882, pre-dates *L. lemmontii* A. Gray, 1886, plants formerly bearing the name *L. lemmontii* must now bear the name *L. glandulifera* (Table 1).

I recognize three varieties of *L. glandulifera*: (1) *L. glandulifera* var. *glandulifera*, includes plants formerly recognized as *L. lemmontii* var. *lemmontii*,

L. lemmontii A. Gray var. *ramulosissima* (Nelson) Ferris, and some plants that were included in *L. glandulifera* var. *glandulifera* by Lane (1993); (2) *L. glandulifera* var. *peirsonii* with the same circumscription as *L. lemmontii* A. Gray var. *peirsonii* (J. T. Howell) Ferris; and (3) *L. glandulifera* A. Gray var. *tomentosa* (Greene) Ferris.

Lessingia glandulifera A. Gray var. *peirsonii* (J. T. Howell) Markos, comb. nov. Basionym: *Lessingia germanorum* Cham. var. *peirsonii* J. T. Howell, University of California Publications in Botany 16:26. 1929. Type: California, Los Angeles Co., Kings Canyon, Liebre Mountains, 9 May 1923, F. W. Peirson 3550 (CAS).

Lessingia pectinata Greene is the earliest available name for plants that have yellow corollas, brown-purple bands in their corolla tubes, and truncate-penicillate style-branch appendages. I recognize two varieties of *L. pectinata*: (1) *L. pectinata* Greene var. *pectinata* with the same circumscription as *L. glandulifera* A. Gray var. *pectinata* (Greene) Jepson; and (2) *L. pectinata* var. *tenuipes* comb. nov. includes some plants included in *L. glandulifera* var. *glandulifera* by Lane (1993).

Lessingia pectinata Greene var. *tenuipes* (J. T. Howell) Markos, comb. nov. Basionym: *Lessingia germanorum* Cham. var. *tenuipes* J. T. Howell, University of California Publications in Botany 16:20. 1929. Type: California, San Luis Obispo Co., 4 mi s of Templeton, 17 Aug 1927, J. T. Howell 3005 (CAS).

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TABLE 1. SUMMARY OF TAXONOMIC CHANGES IN *LESSINGIA* (*SENSU STRICTO*).

Lane (1993)	Markos (this study)
Yellow corollas without a brow-purple band in corolla tubes, style-branch appendages lanceolate	
<i>L. lemmontii</i> A. Gray var. <i>lemmontii</i>	<i>L. glandulifera</i> A. Gray var. <i>glandulifera</i>
<i>L. lemmontii</i> A. Gray var. <i>peirsonii</i> (J. T. Howell) Ferris	<i>L. glandulifera</i> A. Gray var. <i>peirsonii</i> (J. T. Howell) Markos
<i>L. lemmontii</i> A. Gray var. <i>ramulosissima</i> (Nelson) Ferris	<i>L. glandulifera</i> A. Gray var. <i>glandulifera</i>
<i>L. glandulifera</i> A. Gray var. <i>tomentosa</i> (Greene) Ferris	<i>L. glandulifera</i> A. Gray var. <i>tomentosa</i> (Greene) Ferris
<i>L. glandulifera</i> A. Gray var. <i>glandulifera</i>	<i>L. glandulifera</i> A. Gray var. <i>glandulifera</i>
Yellow corollas with a brow-purple band in corolla tubes style-branch appendages truncate-penicillate	
<i>L. glandulifera</i> A. Gray var. <i>glandulifera</i>	<i>L. pectinata</i> Greene var. <i>tenuipes</i> (J. T. Howell) Markos
<i>L. glandulifera</i> A. Gray var. <i>pectinata</i> (Greene) Jepson	<i>L. pectinata</i> Greene var. <i>pectinata</i>

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